there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures; and

(9) Stop work when the worker discovers employee exposures to imminently dangerous conditions or other serious hazards; provided that any stop work authority must be exercised in a justifiable and responsible manner in accordance with procedures established in the approved worker safety and health program.

# §851.21 Hazard identification and assessment

- (a) Contractors must establish procedures to identify existing and potential workplace hazards and assess the risk of associated workers injury and illness. Procedures must include methods to:
- (1) Assess worker exposure to chemical, physical, biological, or safety workplace hazards through appropriate workplace monitoring:
- (2) Document assessment for chemical, physical, biological, and safety workplace hazards using recognized exposure assessment and testing methodologies and using of accredited and certified laboratories:
- (3) Record observations, testing and monitoring results:
- (4) Analyze designs of new facilities and modifications to existing facilities and equipment for potential workplace hazards:
- (5) Evaluate operations, procedures, and facilities to identify workplace hazards;
- (6) Perform routine job activity-level hazard analyses;
- (7) Review site safety and health experience information; and
- (8) Consider interaction between workplace hazards and other hazards such as radiological hazards.
- (b) Contractors must submit to the Head of DOE Field Element a list of closure facility hazards and the established controls within 90 days after identifying such hazards. The Head of DOE Field Element, with concurrence by the Cognizant Secretarial Officer, has 90 days to accept the closure facility hazard controls or direct additional actions to either:
  - (1) Achieve technical compliance; or

- (2) Provide additional controls to protect the workers.
- (c) Contractors must perform the activities identified in paragraph (a) of this section, initially to obtain baseline information and as often thereafter as necessary to ensure compliance with the requirements in this Subpart.

# §851.22 Hazard prevention and abatement.

- (a) Contractors must establish and implement a hazard prevention and abatement process to ensure that all identified and potential hazards are prevented or abated in a timely manner.
- (1) For hazards identified either in the facility design or during the development of procedures, controls must be incorporated in the appropriate facility design or procedure.
- (2) For existing hazards identified in the workplace, contractors must:
- (i) Prioritize and implement abatement actions according to the risk to workers:
- (ii) Implement interim protective measures pending final abatement; and
- (iii) Protect workers from dangerous safety and health conditions;
- (b) Contractors must select hazard controls based on the following hierarchy:
- (1) Elimination or substitution of the hazards where feasible and appropriate;
- (2) Engineering controls where feasible and appropriate;
- (3) Work practices and administrative controls that limit worker exposures; and
  - (4) Personal protective equipment.
- (c) Contractors must address hazards when selecting or purchasing equipment, products, and services.

# §851.23 Safety and health standards.

- (a) Contractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace:
- (1) Title 10 Code of Federal Regulations (CFR) 850, "Chronic Beryllium Disease Prevention Program."
- (2) Title 29 CFR, Parts 1904.4 through 1904.11, 1904.29 through 1904.33; 1904.44, and 1904.46, "Recording and Reporting Occupational Injuries and Illnesses."

## §851.24

- (3) Title 29 CFR, Part 1910, "Occupational Safety and Health Standards," excluding 29 CFR 1910.1096, "Ionizing Radiation."
- (4) Title 29 CFR, Part 1915, "Shipyard Employment."
- (5) Title 29 CFR, Part 1917, "Marine Terminals."
- (6) Title 29 CFR, Part 1918, "Safety and Health Regulations for Longshoring."
- (7) Title 29 CFR, Part 1926, "Safety and Health Regulations for Construction."
- (8) Title 29 CFR, Part 1928, "Occupational Safety and Health Standards for Agriculture."
- (9) American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices," (2005) (incorporated by reference, see §851.27) when the ACGIH Threshold Limit Values (TLVs) are lower (more protective) than permissible exposure limits in 29 CFR 1910. When the ACGIH TLVs are used as exposure limits, contractors must nonetheless comply with the other provisions of any applicable expanded health standard found in 29 CFR 1910.
- (10) American National Standards Institute (ANSI) Z88.2, "American National Standard for Respiratory Protection," (1992) (incorporated by reference, see §851.27).
- (11) ANSI Z136.1, "Safe Use of Lasers," (2000) (incorporated by reference, see §851.27).
- (12) ANSI Z49.1, "Safety in Welding, Cutting and Allied Processes," sections 4.3 and E4.3 (1999) (incorporated by reference, see §851.27).
- (13) National Fire Protection Association (NFPA) 70, "National Electrical Code," (2005) (incorporated by reference, see §851.27).
- (14) NFPA 70E, "Standard for Electrical Safety in the Workplace," (2004) (incorporated by reference, see §851.27).
- (b) Nothing in this part must be construed as relieving a contractor from complying with any additional specific safety and health requirement that it determines to be necessary to protect the safety and health of workers.

### §851.24 Functional areas.

- (a) Contractors must have a structured approach to their worker safety and health program which at a minimum, include provisions for the following applicable functional areas in their worker safety and health program: construction safety; fire protection; firearms safety; explosives safety; pressure safety; electrical safety; industrial hygiene; occupational medicine; biological safety; and motor vehicle safety.
- (b) In implementing the structured approach required by paragraph (a) of this section, contractors must comply with the applicable standards and provisions in appendix A of this part, entitled "Worker Safety and Health Functional Areas."

#### §851.25 Training and information.

- (a) Contractors must develop and implement a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards are provided with the training and information on that hazard in order to perform their duties in a safe and healthful manner.
  - (b) The contractor must provide:
- (1) Training and information for new workers, before or at the time of initial assignment to a job involving exposure to a hazard:
- (2) Periodic training as often as necessary to ensure that workers are adequately trained and informed; and
- (3) Additional training when safety and health information or a change in workplace conditions indicates that a new or increased hazard exists.
- (c) Contractors must provide training and information to workers who have worker safety and health program responsibilities that is necessary for them to carry out those responsibilities.

### §851.26 Recordkeeping and reporting.

- (a) Recordkeeping. Contractors must:
- (1) Establish and maintain complete and accurate records of all hazard inventory information, hazard assessments, exposure measurements, and exposure controls.
- (2) Ensure that the work-related injuries and illnesses of its workers and